

**The Rise of Broadband Video and the Future of Digital Media**  
**FCC Commissioner Meredith A. Baker**  
**Silicon Flatirons Center**  
**October 12, 2009**

Good afternoon. I want to thank my good friend Dale Hatfield and the staff of the Silicon Flatirons Center for their kind invitation to address this very timely conference on the rise of broadband video and the future of digital media. Having the opportunity to visit with you in Colorado at this wonderful time of the year is an added bonus.

Let me start by telling you what we have been up to at the FCC because it plays into our topic today. As part of the “stimulus” legislation, Congress instructed the Commission to develop and implement a National Broadband Plan. By February 17, 2010, the Commission must and will deliver to Congress a Plan that ensures that every American can access broadband capability at affordable prices and establishes clear benchmarks for meeting that goal.

To meet this objective, the Commission has been holding a series of workshops in Washington, D.C. (thanks to those of you who have made the trip to participate) and conducting field hearings throughout the country. Our intention has been to engage in an open dialogue with all participants regarding the National Broadband Plan. I had the pleasure of presiding over the first field hearing, on spectrum use, last month in Austin, Texas. Commissioner McDowell and I hosted one on capital formation in the broadband market. Last week, my colleagues Michael Copps and Mignon Clyburn conducted broadband hearings in South Carolina and, last Thursday, Chairman Genachowski and I were in San Diego for a hearing on mobile applications and spectrum. We have more of these workshops and field hearings to come.

We are reaching out to a diverse group of interested parties because of the importance of broadband to our national economic health and what it means to the next generation of education, health, smart energy and public safety. In order for broadband to achieve its potential as critical infrastructure, we must accelerate the development of the broadband ecosystem. This ecosystem encompasses three related and interdependent policy goals: the deployment of facilities, the adoption by users, and the development and introduction of innovative applications and devices. Specifically, first, we are exploring ways to increase deployment through reducing costs and increasing the supply of key inputs, such as allocation of appropriate amounts and types of spectrum. Second, we seek to increase the rate of adoption through targeted programs and the creation of incentives to broadband use. Third, we must facilitate the widest possible variety of technologically advanced applications through the use of relevant data and devices, by establishing appropriate standards. Each of these three factors feeds off the other, and all are necessary if we are to allow broadband to realize its unprecedented potential.

One of the preliminary conclusions that we have drawn from our workshops and hearings to date is that the utility of the Internet is an important driver of adoption and usage. The free flow of information among a wide range of users has had much to do with the growth in the adoption and use of broadband. While this flow of information spurs adoption, digital content is what draws potential users in for a closer look at all that the Internet has to offer.

Our workshops and hearings have established that the majority of application usage today is focused on browsing, communication and entertainment. The use of one type of application, video, the subject of this conference, has exploded over the past few years, and continues to grow

exponentially. The online video available on websites such as YouTube once meant just that—homemade videos that people like “you” uploaded on the Internet to share with others.

However, during the past few years, broadcast and cable networks have made increasing amounts of their programming available online. While YouTube remains the most popular site for online video streams, usage has soared over Hulu, a website launched a year ago that offers commercial-supported streaming video of TV shows and films from a number of sources., Hulu is now the second-rated online site in terms of video streams, behind only YouTube, and consumer use of each is growing. In a May 2009 report, the Nielsen Company stated that the total number of video streams on YouTube during April 2009 had increased by 35.5 percent over that in April 2008 and streams on Hulu had risen 490.4 percent. We have moved from using the Internet to watch a homemade video of a dancing baby to watching *Dancing with the Stars*.

If consumers are offered more of the type of high quality online video content that they want to see, such as acclaimed motion pictures and popular television programs, adoption will increase. Indeed, with more of this programming now available, the level of online viewing has soared. Last month, Nielsen reported on overall online video usage during August 2009, noting an increase in total streams of 41 percent over last year, with the number of unique viewers up 18 percent, the average time per viewer up 38.6 percent, and the average number of streams per viewer up 19.6 percent. ComScore similarly reported record-breaking viewing numbers for the month, with more than 161 million U.S. users watching 25 billion online videos, 10.2 billion more than those viewed in January. Overall, the average viewer watched 582 minutes (9.7 hours) of video.

Media companies, both content owners and distributors, are taking note of this trend in modifying their business offerings and, by doing so, are driving these figures ever upward. The television industry has made a push to the Internet, with the top broadcast networks each providing increasing amounts of video online, with greater numbers of visitors to their websites to view that content. For example, abc.com initiated about 215 million full program episodes from last season with, on average, over 6 million unique users watching 100 minutes of video each month during January to May 2009. Television network streaming over the Disney Channel during the summer of 2009 was up seven percent from that the year before, with more than 280 million videos offered, a gain of 20 million over last summer. CBS sites had 169 million videos streamed during August, more than twice the number streamed last year. This year, 7.5 million college basketball fans visited the online NCAA March Madness on Demand video service on cbs.com, streaming 8.6 million hours of video, an increase of 75 percent. Similarly, NBC’s website was visited by 52 million unique visitors to watch the 2008 Beijing Olympic Games, viewing 10 million hours of video. The Internet platform accounted for 26 percent of the total 2008 Olympic video consumption, 32 percent on weekdays. Lastly, Fox shows the same trend. As of May 2009, fox.com had a million unique visitors, up 24 percent from May 2008, and 36 million streams, 48 percent more than those in May 2008.

Hollywood is also increasingly involved in this process, recognizing that, as DVD sales decline, the Internet can provide an efficient and profitable way to distribute films. Recent press reports are that YouTube has held talks with several studios about offering online film rentals. For its part, in addition to its DVD rental delivery by mail, Netflix now offers online access to rental videos, and, last month, it announced a deal with Microsoft to stream video to Xbox 360 game consoles.

Recently, Comcast and Time Warner Cable rolled out a 5,000-customer pilot test for their TV Everywhere service, which allows subscribers to access online the cable programming to

which they subscribe. A poll of online video viewers last month indicated that about 23 percent would be willing to pay an extra \$10 to \$15 per month for the service. Last month, AT&T launched a website that offers free online access to films and broadcast and cable network television shows. Verizon recently launched a trial of a similar service.

More diverse original programming is also being offered on the Internet. Last month, the *Wall Street Journal* introduced The News Hub, a live video series streamed twice every weekday, featuring Dow Jones journalists and guests commenting on the day's business news. Fox Business Network offers a similar daily one-hour webcast. With regard to sports programming, last month, the Big Ten Network doubled its commitment to several sports by streaming at least 200 live events on its website, BigTenNetwork.com. Two weeks ago, Cox Communications began offering to its broadband customers the ESPN360.com online video service, including more than 3,500 live sports events per year, including the NBA, NCAA men's and women's basketball and college football, and World Cup events. Major League Baseball offers online live casts of baseball games for a subscription fee at MLB.com.

Mitch Berman's ZillionTV has another approach to getting video content to consumers via broadband, by bypassing PCs entirely, offering a device that connects directly to a television. You will shortly be hearing from him and others on so-called "disruptive innovations" and alternative business models.

We at the Commission welcome these developments, which can only increase the richness of the material available and therefore enhance the attractiveness of broadband use to consumers. Nevertheless, we recognize that these changes present a number of regulatory challenges. First, like digital audio recordings of music, digital video is subject to cheap and easy reproduction and distribution. At one of the Commission's broadband workshops, Frederick Huntsberry, the Chief Operating Officer of Paramount Pictures, gave a sobering demonstration of how easy it is to illegally acquire a motion picture over the Internet, and how many websites exist that facilitate what is, in plain terms, the online stealing of copyrighted video content. Film makers and television production companies undertake sizeable investments in talent, production and other resources and post-theatrical revenues, such as DVD sales and rentals, provide the critical reimbursement. According to the MPAA, the film industry employs about 2.5 million people, in all 50 states. The creators and holders of the rights to the video material most desired by consumers will not make it available unless the Internet provides an environment that protects their copyrights and discourages piracy. One need only look to the lesson of Korea, which initially rapidly rolled out its broadband plan with virtually no copyright safeguards, which resulted in substantial piracy of films and other valuable video programming. This led to the withdrawal of their content by a number of copyright holders of valued video content, both domestic and foreign.

One of the challenges of broadband is to create an environment that respects the rights of the members of the creative community, assuring them that, if they place their material on the Internet, allowing it to be enjoyed by millions of users, they will be compensated for their efforts.

We need to continue to work to create technical solutions that will protect the rights of copyright holders yet encourage content innovation by all. We must find a way to distinguish between lawful and unlawful content, but in a manner that will not result in unintended consequences. Our objective should be to encourage the diversity of video material available to consumers, yet ensure that the creators of that material are fairly compensated for their efforts. In doing so, we will maximize the rich diversity of broadband content, thus fostering adoption. The

presence of desired entertainment content will attract users to the Internet, who will then be positioned to benefit from all of the life-enhancing applications that it offers.

Another challenge broadband video is presenting is to ensure that sufficient and appropriate spectrum is assigned to create a satisfying experience for wireless broadband users. Carriage of video matter, particularly that offered in high definition, is one of the most bandwidth-consuming applications. Viewing a critically acclaimed motion picture or a crucial live basketball game online proves to be less than pleasurable if it is littered with pixilation, stuttering or other interruptions. We must ensure that our National Broadband Plan focuses on a spectrum policy that provides sufficient speeds and quality of service for video services in all of their evolving applications.

As many of you know, I have a keen interest in spectrum matters, and, more specifically, the means and tools to maximize spectral efficiency and optimize the use of the country's bandwidth, including that required for video. We can reap great benefits from a spectrum policy that unlocks the value of the public airwaves in more efficient, transparent, and flexible ways. It is crucial that we pursue policies to promote continued innovation and investment in the wireless marketplace. Ongoing market innovation is the key behind greater productivity and improved gateways to information that enhance the lives of American consumers and our economy.

Finally, another regulatory issue presented by the proliferation of online video is to provide parents with the information and tools that they need to restrict access by their children to material that they deem inappropriate. One of the most important and demanding jobs is that of a parent. Indecent, violent or otherwise objectionable programming to which our children have access can present a daunting parenting challenge. Believe me, I know. Because extreme images and words have a powerful influence on the behavior of our children, parents must have the tools to allow them to identify harmful content so that they can protect their families. Nielsen reports that, between April and June 2009, children aged two through 11 spent an average of nearly two hours per month watching video over the Internet, comprising six percent of the online video-watching audience.

Recently, the Commission issued a Report to Congress called for by the Child Safe Viewing Act of 2007 that surveyed the various tools available to parents, over so-called "traditional" media and the "new" media such as advanced wireless devices and the Internet. We reported that, although each medium of delivery has developed a set of tools, they differ substantially from platform to platform.

The Commission will shortly issue a Notice of Inquiry that will seek additional input from industry, advocacy groups and the public about what can be done to make the job of parenting easier. A full collaborative effort by all industries and other interested parties is necessary to craft solutions to this challenge. Our objective should be to use best industry practices and technology to have a system that works across all platforms, providing parents with program information and easy-to-use tools. Chairman Genachowski has stated that this initiative is a top priority and I agree that it is one of the most important matters before the Commission.

This is an exciting time to be at the Commission as we wrestle with these issues. How we draft the National Broadband Plan regarding the management and distribution of the ever-increasing amount of online video content will have great impact on how well we can achieve our three objectives of deployment, adoption and introduction of new applications for broadband. All of the bandwidth in the world will mean nothing if the Internet does not offer consumers the

content that they desire, and if all of the content in existence is available but we do not provide the technical means for it to be enjoyed, the Internet will not continue to flourish.

As we will hear from the speakers to follow, companies large and small are exploring new technological ways, and employing innovative business models, to provide consumers the online content that they desire. With your assistance, the Commission can create a National Broadband Plan that complements, supports and enhances these industry efforts. If we do this right, and we are committed to doing so, the Internet will have an even more profound effect on the lives of all Americans. If you haven't already done so, please make your views known, by participating at the Commission in the ongoing broadband proceeding at [broadband.gov](http://broadband.gov), by filing comments, attending our workshops, or joining in our blogs. Please also consider filing comments in our upcoming children's inquiry. By working together, we can achieve the remarkable potential of broadband.